



PATENT
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:)
)
Richard A. ESSER et al.) Group Art Unit: 3727
)
Application No.: 09/689,615) Examiner: Castellano, S.
)
Filed: October 13, 2000)
)
For: RAPID DEPLOY HAZMAT)
CONTAINMENT DEVICE)

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Sir:

SUPPLEMENTAL APPEAL BRIEF UNDER 37 C.F.R. § 1.193(b)(2)(ii) and 1.192

In response to the Office Action dated August 28, 2003, the period for response having been extended by three months with a Petition for Extension of Time filed herewith, and pursuant to 37 C.F.R. §§ 1.192 and 1.193(b)(2)(ii), Appellants request reinstatement of the Appeal Brief filed June 25, 2003, and presents in triplicate their Supplemental Appeal Brief. Appellants request that the fees required under 37 C.F.R. §§ 1.17(b) and (c) that accompanied the Notice of Appeal filed February 25, 2003, and the Appeal Brief filed June 25, 2003, respectively, be applied to this Supplemental Appeal Brief.¹

¹ The fees required under 37 C.F.R. §§1.17(b) and (c) have increased from \$320.00 to \$330.00 on October 1, 2003 (\$160.00 to \$165.00 for Small Entity). Because Appellants are entitled to reinstate the Appeal Brief filed on June 25, 2003, Appellants request that the difference between the fees be waived.

This is a supplemental appeal to the Board of Patent Appeals and Interferences from a decision by the Examiner reopening prosecution and rejecting claims 1-9, 13, 20, 21, and 29-34 in response to the Appeal Brief filed by Appellants on June 25, 2003. The appealed claims are set forth in the Appendix. If additional fees are required, please charge the deficiencies to Deposit Account No. 06-0916. If a fee is required for an extension of time under 37 C.F.R. § 1.136 and such fee is not accounted for above, Appellants petition for such an extension and request that the fee be charged to Deposit Account No. 06-0916.

I. Related Appeals and Interferences

Appellants' undersigned legal representative knows of no other appeals or interferences which will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

II. Status Of Claims

Claims 1-9, 13, and 20-34 are pending in this application. No claims have been allowed. Claims 22-28 have been withdrawn from consideration.

Claims 1-9, 13, 20, 21, and 29-34 were finally rejected on November 25, 2002. Following a Notice of Appeal filed on February 25, 2003, Appellants filed an Appeal Brief on June 25, 2003. In response, the Examiner has reopened prosecution and rejected claims 1-9, 13, 20, 21, and 29-34. Accordingly, these claims are the subject of

Should, however, these fees not be waived, Appellants authorize the Commissioner to charge any remaining balance to our Deposit Account No. 06-0916.

this supplemental appeal. The claims on appeal are set forth under the heading
APPENDIX.

III. Status Of Amendments

No amendments under 37 C.F.R. § 1.116 have been filed.

IV. Summary Of Invention

The claimed invention relates to a portable containment device for recovering and containing hazardous materials. Specification at page 2, lines 7-9. The containment device comprises a frame that allows the containment device to be rapidly deployed. Id. at page 4, lines 3-16. The frame comprises a plurality of interconnected rods 16 and hubs 12, 18. Id. Each rod 16 is pivotably connected to another rod 16 intermediate the ends of the rod. Id.

The frame is movable between a closed configuration 10 and an open configuration 20. Id. at page 4, lines 3-16; page 6, line 18 to page 7, line 8; and Figs. 1 and 2. In the open configuration, the frame forms four side walls. Id. at page 8, lines 19-22. The containment device further comprises a receptacle 14, 23 disposed within the side walls for receiving hazardous materials. Id. at page 8, line 22 to page 9, line 6. The containment device may further comprise a liner 22 disposed in the receptacle 14, 23. Id. at page 9, line 19 to page 10, line 3 and Fig. 3.

V. Issues

A. Whether claims 29-34 are patentable under 35 U.S.C. § 102(b) over U.S. Patent No. 4,989,749 to Choi ("Choi").

B. Whether claims 29-34 are patentable under 35 U.S.C. § 102(b) over U.S. Patent No. 5,274,980 to Zeigler ("Zeigler '980").

C. Whether claims 1-9, 20, 21, 29-31, 33, and 34 are patentable under 35 U.S.C. § 102(b) over U.S. Patent No. 5,444,946 to Zeigler ("Zeigler '946").

D. Whether claims 1-9, 20, 21, 29-31, 33, and 34 are patentable under 35 U.S.C. § 102(b) over U.S. Patent No. 5,943,837 to Esser et al. ("Esser").

E. Whether claims 1-9, 20, 21, 29-31, 33, and 34 are patentable under 35 U.S.C. § 103(a) over Zeigler '946.

F. Whether claims 1-9, 20, 21, 29-31, 33, and 34 are patentable under 35 U.S.C. § 103(a) over Esser.

G. Whether claim 13 is patentable under 35 U.S.C. § 103(a) over Zeigler '946 or Esser in view of U.S. Patent No. 4,883,189 to Löbbert ("Löbbert").

VI. Grouping Of Claims

Each claim of this patent application is separately patentable, and upon issuance of a patent will be entitled to a separate presumption of validity under 35 U.S.C. § 282. For convenience in handling this Appeal, however, the claims will be grouped in the following two groups:

Group I: Claims 1-9, 13, 20, and 21

Group II: Claims 29-34

Thus, pursuant to 37 C.F.R. § 1.192(c)(7), in this Appeal the rejected claims in each group will stand or fall together, but separately from the other group. In the following Argument, Appellants explain why the claims are believed to be separately patentable.

VII. Argument

The arguments presented in this brief supplement those previously presented in the Appeal Brief filed on June 25, 2003. Because, however, the previous arguments are considered to be relevant to the above described issues, Appellants have explicitly incorporated them in this Supplemental Appeal Brief.

A. Argument for Group I: Claims 1-9, 13, 20, and 21

The claims in this group recite the common feature of a rapid deploy containment device adapted to receive and retain hazardous waste, the containment device being convertible between an erect open configuration and a collapsed compact configuration, the containment device comprising rods, each rod being pivotally joined to another rod by a scissors connection intermediate the ends of said rod, hubs, each hub receiving an end portion of at least two rods along separate axes of each hub, the end portion being pivotally joined to said hub, where the end portion pivots in relation to said hub along a single axis of revolution, each end portion being rotatable about its axis of revolution from the collapsed compact configuration, where all of said rods are substantially parallel to one another, to the erect open configuration, the containment device articulating along three axes, whereby the containment device changes between the compact and open configurations in height, length and width, and a canopy connected to at least two hubs and residing in the receptacle region of the erect open containment device, as more particularly set forth, for example, in claims 1 and 20.

Of the claims in this group, claims 1-9, 20, and 21 were rejected under 35 U.S.C. § 102(b) as being anticipated by Zeigler '946 and under 35 U.S.C. § 103(a) as being

unpatentable over Zeigler '946. Further, claims 1-9, 20, and 21 were rejected under 35 U.S.C. § 102(b) as being anticipated by Esser and under 35 U.S.C. § 103(a) as being unpatentable over Esser. Claim 13 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Zeigler '946 or Esser in view of Löbbert.

1. Claims 1-9, 20, and 21 are patentable under 35 U.S.C. § 102 over Ziegler '946

According to M.P.E.P. § 2131, "to anticipate a claim, the reference must teach every element of the claim." Further, a "claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Id.* (citing Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). Because the Ziegler '946 reference does not teach every element of either independent claim 1 or 20, Appellants respectfully submit that the rejection should be reversed.

In particular, Ziegler '946 fails to teach or suggest Appellants' combination recited in claim 1, including at least a "rapid deploy containment device adapted to receive and retain hazardous waste," "the containment device in the erect open configuration forming a receptacle region, the containment device comprising rods, each rod being pivotally joined to another rod by a scissors connection intermediate the ends of said rod," and "a canopy connected to at least two hubs and residing in the receptacle region of the erect open containment device."

Further, Ziegler '946 fails to teach or suggest Appellants' combination recited in claim 20, including at least a "rapid deploy containment device adapted to receive and retain hazardous waste," "the containment device comprising rods, each rod being

pivotally joined to another rod by a scissors connection intermediate the ends of said rod”, and “a canopy affixed to at least two hubs proximate the top portion of the containment device in the open erect configuration to form the receptacle region capable of receiving and retaining hazardous chemicals.”

In the Office Action at page 4, it was asserted with respect to Ziegler '946 that “the rods are joined by a scissors connection intermediate their ends.” However, according to Ziegler '946, not all of the rods are joined to other rods. See for example, Ziegler '946 at col. 4, line 67 to col. 5, line 12:

“With reference to Fig. 7, it is seen that the module 61 includes four interconnected ‘scissors’ or pairs 63, 65, 67, and 69 of struts. The strut pair 63 includes struts 71 and 73; the strut pair 65 includes struts 75 and 77; the strut pair 67 includes struts 79 and 81; and the strut pair 69 includes struts 83 and 85. **Struts 75 and 77 and struts 83 and 85 of the strut pairs 65 and 69, respectively, are preferably pivotally pinned to one another by means 87 such as pins or rivets.**” (emphasis added).

As described in the above passage from Ziegler '946 and, as shown in Fig. 7, only two of the four pairs of struts are pivotally pinned in the module of Ziegler '946. The other two pairs of struts are not even connected. Thus, Ziegler '946 fails to teach or suggest the element of Appellants' claims 1 and 20 reciting “**each rod** being pivotally joined to another rod by a scissors connection intermediate the ends of said rod.” (emphasis added).

Further, the Examiner asserted:

“The portable shelter assembly is **inherently capable** of performing as a rapid deploy containment device **adapted to receive and retain hazardous waste** either in its upright configuration forming a ceiling and side walls wherein hazardous smoke and other lighter than air chemicals can be contained or in an inverted (turned up-side-down) configuration forming a reservoir with a bottom and side

walls wherein hazardous liquids and other heavier than air chemicals can be contained.” (emphases added).

Office Action, page 4. Appellants respectfully disagree with the Examiner’s assertion that the shelter assembly is inherently capable of performing as a rapid deploy containment device adapted to receive and retain hazardous waste.

Instead, Zeigler '946 discloses:

“The shelters 21, 23, 25, and 27 [every shelter embodiment disclosed] are generally cylindrical in shape, when erected, and have open ends. The ends of the shelters 21, 23, 25, and 27 may be closed off with suitable coverings, preferably including doorways, or the shelters may be combined with one another, such as by being joined together at ends or sides of one another with means such as zipper fasteners or VELCRO TM hook and loop fasteners attached to the covers 37 and 37, to form larger shelters for purposes such as mobile hospitals.” (emphasis added).

Zeigler '946 at col. 16, lines 47-56.

The open-ended shelter of Zeigler '946 is totally unsuitable for use in any capacity as a containment device. Any attempt to use the shelter of Zeigler '946 to contain hazardous smoke or other lighter-than-air chemicals would fail. If the shelter of Zeigler '946 were used, as suggested by the Examiner, the hazardous smoke and lighter-than-air chemicals would likely escape through the “open ends” or seep through the canopy. Additionally, any waste poured into the inverted shelter of Zeigler '946 would either leak out of the “open ends” or through the material used to cover the shelter. Although Zeigler '946 discloses using a waterproof, fire-resistant, and ultraviolet resistant material, there is no teaching of using either a chemical resistant or air-tight canopy that could be used to contain hazardous waste or hazardous smoke, as suggested by the Examiner. Id. at col. 4, lines 2-5.

Because the Ziegler '946 reference does not teach every element of independent claims 1 and 20, as required by M.P.E.P. § 2131, Appellants respectfully submit that the rejection should be reversed.

In addition, claims 2-9 and 21 are patentable at least for the reasons claim 1 and 20 are patentable. Specifically, because Ziegler '946 does not teach every element of claim 1 or 20, it certainly does not teach the additional elements recited in claims 2-9 and 21.

Accordingly, Appellants respectfully request that the rejection of claims 1-9, 13, 20, and 21 be reversed and that these claims be allowed.

2. Claims 1-9, 20, and 21 are patentable under 35 U.S.C. § 102 over Esser

Because the Esser reference does not teach every element of either independent claim 1 or 20, Appellants respectfully submit that the rejection should be reversed.

In particular, Esser fails to teach or suggest Appellants' combination recited in claim 1, including at least a "rapid deploy containment device adapted to receive and retain hazardous waste," "the containment device in the erect open configuration forming a receptacle region," and "a canopy connected to at least two hubs and residing in the receptacle region of the erect open containment device."

Further, Esser fails to teach or suggest Appellants' combination recited in claim 20, including at least a "rapid deploy containment device adapted to receive and retain hazardous waste," and "a canopy affixed to at least two hubs proximate the top portion of the containment device in the open erect configuration to form the receptacle region capable of receiving and retaining hazardous chemicals."

In the Office Action, the Examiner asserted that:

“The quick erect shelter apparatus is **inherently capable** of performing as a rapid deploy containment device **adapted to receive and retain hazardous waste** either in its upright configuration forming a ceiling and side walls wherein hazardous smoke and other lighter than air chemicals can be contained or in an inverted (turned up-side-down) configuration forming a reservoir with a bottom and side walls wherein hazardous liquids and other heavier than air chemicals can be contained.” (emphases added).

Office Action, page 5. Appellants respectfully disagree.

As shown in Fig. 1, the shelter of Esser, like that of Zeigler '946, has open ends. As discussed above with reference to Zeigler '946, such an open-ended shelter is totally unsuitable for use in any capacity as a containment device, whether inverted or up-right. Any waste poured into the inverted shelter, or any gas or lighter-than-air chemicals inside the up-right shelter, would either leak out of the open ends or seep through the canopy. Like Zeigler '946, Esser provides no teaching of using a chemical resistant or air-tight canopy for containing hazardous chemicals or smoke, as the Examiner suggests.

Moreover, Applicants respectfully disagree with the Examiner's characterization of the “inherent features” of Esser. Inherency requires inevitability. Thus, to be inherent the alleged result must be inevitable from the operation disclosed or the inherent characteristic must be inevitably present in the device. “Inherency may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient to establish inherency.” *Scaltech, Inc. v. Retec/Tetra, L.L.C.*, 178 F.3d 1378, 1384, 51 USPQ2d 0155, 1059 (Fed. Cir. 1999). Thus, even if the shelter of Esser could serve to receive and retain hazardous waste, which Appellants believe it cannot, such an application would be only one possibility for

the shelter. Since such an application represents a mere possibility, and not an inevitable result, Esser cannot inherently anticipate independent claims 1 or 20.

Because the Esser reference does not teach every element of independent claims 1 and 20, expressly or inherently, as required by M.P.E.P. § 2131, Appellants respectfully submit that the rejection should be reversed.

In addition, claims 2-9 and 21 are patentable at least for the reasons claim 1 and 20 are patentable. Specifically, because Esser does not teach every element of claim 1 or 20, it certainly does not teach the additional elements recited in claims 2-9 and 21.

Accordingly, Appellants respectfully request that the rejection of claims 1-9, 20, and 21 be reversed and that these claims be allowed.

3. Claims 1-9, 13, 20, and 21 are patentable under 35 U.S.C. § 103 over Ziegler '946

To establish a prima facie case of obviousness under 35 U.S.C. § 103, three basic criteria must be satisfied. First, "there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." M.P.E.P. § 2143. "Second, there must be a reasonable expectation of success." Id. Third, "the prior art reference (or references when combined) must teach or suggest all the claim limitations." Id. Because none of the three basic criteria have been satisfied, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be reversed.

(a) There is no suggestion or motivation to modify Zeigler '946

First, there is no suggestion or motivation in the Zeigler '946 reference or in the knowledge generally available to one of ordinary skill in the art to modify the Zeigler '946 reference, as asserted in the Office Action.

Zeigler '946 teaches an “expandable and collapsible shelter [...] formed from a series of interconnected expandable and collapsible modules,” where “[e]ach module is formed from interconnected strut pairs pivotably attached at their ends to hub assemblies.” Zeigler '946 at Abstract. See also Figs. 5-7. Further, “[i]nner and outer covers corresponding to the shapes of the frameworks...are provided” that “form a thermal barrier and are preferably made of a flexible, waterproof, fire-resistant, and ultraviolet resistant material.” *Id.* at col. 3, line 68 to col. 4, line 5. See also Figs. 1C and 2C.

Appellants' claim 1 recites a containment device comprising a combination of elements, including at least “rods, each rod being pivotally joined to another rod by a scissors connection intermediate the ends of said rod,” “hubs, each hub receiving an end portion of at least two rods,” and “a canopy connected to at least two hubs and residing in the receptacle region of the erect open containment device.”

Appellants' claim 20 recites a containment device comprising a combination of elements, including at least “rods, each rod being pivotally joined to another rod by a scissors connection intermediate the ends of said rod,” “hubs, each hub receiving an end portion of at least two rods,” and “a canopy affixed to at least two hubs proximate the top portion of the containment device in the open erect configuration to form the receptacle region capable of receiving and retaining hazardous chemicals.”

In the Office Action at page 6, it was asserted that it “would have been obvious to invert (turn up-side-down) the portable shelter assembly in order to form a containment device that can be rapidly deployed so that a container could be provided to hold items.”

This unsupported assertion finds no basis in the teachings of Zeigler '946 and goes against the knowledge of one of ordinary skill in the art. The disclosure of Zeigler '946 describes a shelter formed from expandable and collapsible modules. There is no teaching of arranging the shelter in any orientation other than that shown in Figs. 1A-1D, 2B, 2C, 3, 10E, and 10F, much less in an inverted orientation for use as a container for hazardous chemicals.

In fact, Zeigler '946 teaches away from using the shelter in an inverted orientation as a container for hazardous waste. For example, Zeigler '946 states:

“The shelters 21, 23, 25, and 27 [every shelter embodiment disclosed] are generally cylindrical in shape, when erected, and have **open ends**. The ends of the shelters 21, 23, 25, and 27 may be closed off with suitable coverings, preferably including doorways, or the shelters may be combined with one another, such as by being joined together at ends or sides of one another with means such as zipper fasteners or VELCRO™ hook and loop fasteners attached to the covers 37 and 37, to form larger shelters for purposes such as mobile hospitals.” (emphasis added).

Zeigler '946 at col. 16, lines 47-56.

As previously discussed, the open-ended shelter of Zeigler '946 is totally unsuitable for use in any capacity as a containment device. Any waste poured into the inverted shelter of Zeigler '946 would leak out of the “open ends.” Further, Zeigler '946 provides no teaching of a chemical resistant canopy. Thus, the claim rejection is not based on a suggestion or motivation in Zeigler '946 or in the knowledge generally available to one of ordinary skill in the art to modify the reference, as required by the

M.P.E.P. Rather, the rejection relies on hindsight reconstruction and the teaching of Appellants' own disclosure to find the motivation needed to modify the Zeigler '946 reference.

Because there is no suggestion or motivation to modify the Zeigler '946 reference, as required by M.P.E.P. § 2143, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be reversed.

(b) There is no reasonable expectation of success in the modified device

Second, there is no reasonable expectation of success in inverting the shelter of Zeigler '946 and using it as a hazardous waste container. In addition to the reasons described above, namely, the open-ended configuration and the degradable canopy material, the shape of the shelter and other design features would render the shelter unusable in a capacity as a containment device.

As described above and as shown in Figs. 1A-1D, 2B, 2C, 3, 10E, and 10F of Zeigler '946, the shelter is "generally cylindrical in shape." For use in an arch-shaped structure, as taught by Zeigler '946, this arrangement provides stability and an efficient distribution of loads. However, when inverted, as suggested by the Examiner, this shape would be particularly unstable and would tend to tip to one side or the other. This instability would only increase if any material, such as hazardous waste, was added to the inside of the structure. Such a container has essentially no reasonable expectation of success.

Further, as described above, the device of Zeigler '946 is designed for use in an arch-shaped support that distributes externally applied loads. An inverted arch does not

distribute structural loads in a similar fashion. When an arch is inverted, loads applied to the inside of the arch tend to push outwardly and collapse the arch. Accordingly, an inverted arch is unable to withstand even the design loads of a properly oriented arch. In a non-limiting example of a hazardous waste containment scenario, placing oil in a canopy disposed in the inverted arch of Zeigler '946 would apply an outwardly-acting load that would far exceed the design loads of the structure of Zeigler '946 and would collapse the structure.

Because there is no reasonable expectation of success in the modified device of Zeigler '946, as required by M.P.E.P. § 2143, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be reversed.

(c) Zeigler '946 fails to teach or suggest all the claim limitations

Third, Zeigler '946 fails to teach or suggest all the claim limitations recited in Appellants' independent claims 1 and 20.

As discussed with respect to the 35 U.S.C. § 102(b) rejection, Zeigler '946 fails to teach or suggest Appellants' combination recited in claim 1, including at least a "rapid deploy containment device adapted to receive and retain hazardous waste," "the containment device in the erect open configuration forming a receptacle region, the containment device comprising rods, each rod being pivotally joined to another rod by a scissors connection intermediate the ends of said rod," and "a canopy connected to at least two hubs and residing in the receptacle region of the erect open containment device."

Further, Zeigler '946 fails to teach or suggest Appellants' combination recited in claim 20, including at least a "rapid deploy containment device adapted to receive and retain hazardous waste," "the containment device comprising rods, each rod being pivotally joined to another rod by a scissors connection intermediate the ends of said rod", and "a canopy affixed to at least two hubs proximate the top portion of the containment device in the open erect configuration to form the receptacle region capable of receiving and retaining hazardous chemicals."

In the Office Action at page 6, it was asserted with respect to Zeigler '946 that "the rods are joined by a scissors connection intermediate their ends." According to Zeigler '946, however, not all of the rods are joined to other rods. Instead, Zeigler '946 discloses:

"With reference to Fig. 7, it is seen that the module 61 includes four interconnected 'scissors' or pairs 63, 65, 67, and 69 of struts. The strut pair 63 includes struts 71 and 73; the strut pair 65 includes struts 75 and 77; the strut pair 67 includes struts 79 and 81; and the strut pair 69 includes struts 83 and 85. **Struts 75 and 77 and struts 83 and 85 of the strut pairs 65 and 69, respectively, are preferably pivotally pinned to one another by means 87 such as pins or rivets.**" (emphasis added).

Zeigler '946 at col. 4, line 67 to col. 5, line 12.

As described in the above passage from Zeigler '946 and, as shown in Fig. 7, only two of the four pairs of struts are pivotally pinned in the module of Zeigler '946. The other two pairs of struts are not even connected. Thus, Zeigler '946 fails to teach or suggest the element of Appellants' claims 1 and 20 reciting "each rod being pivotally joined to another rod by a scissors connection intermediate the ends of said rod."

It was further asserted in the Office Action dated November 25, 2002, at page 5 that "the rods need only to be connected and such connection could be a direct

connection or an indirect.” Appellants respectfully disagree. Claims 1 and 20 require “the containment device comprising rods, each rod being pivotally joined to another rod by a scissors connection intermediate the ends of said rod.” (emphasis added).

Because Zeigler '946 fails to teach or suggest all the claim limitations recited in Appellants' independent claims 1 and 20, as required by M.P.E.P. § 2143, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be reversed.

In addition, claims 2-9, 13, and 21 are patentable for at least the reasons that claim 1 is patentable. Specifically, because the Zeigler '946 reference does not teach or suggest Appellants' combination of elements recited in claim 1, it certainly does not teach or suggest the additional elements recited in claims 2-9, 13, and 21.

Löbbert, which was cited for its teaching of “a device for collecting waste wherein a container (7) on the interior of a device is lined by a removable liner (18),” is completely silent as to the features recited in Appellants' claim 1. Office Action at page 8. Thus, Löbbert fails to overcome the deficiencies of Zeigler '946 discussed above.

Accordingly, Appellants respectfully request that the rejection of claims 1-9, 13, 20, and 21 be reversed and that these claims be allowed.

4. Claims 1-9, 13, 20, and 21 are patentable under 35 U.S.C. § 103 over Esser

Because none of the three basic obviousness criteria required by M.P.E.P. § 2143 have been satisfied, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be reversed.

(a) There is no suggestion or motivation to modify Esser

First, there is no suggestion or motivation in the Esser reference or in the knowledge generally available to one of ordinary skill in the art to modify the Esser reference as asserted in the Office Action.

Esser teaches a "quick erect shelter frame comprising a plurality of one piece hubs, a plurality of struts pivotally mounted to respective hubs in a lattice formation, a cable extending around the hubs, and a rotatably mounted means fastened to each hub for guiding the cable." Esser at col. 3, lines 14-19.

In the Office Action at page 7, although it was acknowledged that Esser teaches a "device [that] forms a canopy with an open bottom rather than a containment device which is open at the top", it was asserted that it "would have been obvious to invert (turn up-side-down) the quick erect shelter apparatus in order to form a containment device that can be rapidly deployed so that a container could be provided to hold items."

This unsupported assertion finds no basis in the teachings of Esser and goes against the knowledge of one of ordinary skill in the art. The disclosure of Esser describes a shelter formed from an articulate frame. There is no teaching of arranging the shelter in any orientation other than that shown in Figs. 1, 2a, and 8a, much less in an inverted orientation for use as a container for hazardous chemicals.

In fact, Esser teaches away from using the shelter in an inverted orientation as a container for hazardous waste. As shown in Fig. 1, the shelter of Esser, like that of Zeigler '946, has open ends. As previously discussed, an open-ended shelter is totally unsuitable for use in any capacity as a containment device. Any waste poured into the inverted shelter would leak out of the open ends. Further, Esser provides no teaching of a chemical resistant canopy.

Thus, the claim rejection is not based on a suggestion or motivation in Esser or in the knowledge generally available to one of ordinary skill in the art to modify the reference, as required by the M.P.E.P. Rather, the rejection relies on hindsight reconstruction and the teaching of Appellants' own disclosure to find the motivation needed to modify the Esser reference.

Because there is no suggestion or motivation to modify the Esser reference, as required by M.P.E.P. § 2143, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be reversed.

(b) There is no reasonable expectation of success in the modified device

Second, there is no reasonable expectation of success in inverting the shelter of Esser and using it as a hazardous waste container. In addition to the reasons described above, namely, the open-ended configuration and the degradable canopy material, the shape of the shelter and other design features would render the shelter unusable in a capacity as a containment device.

As shown in Figs. 1, 2a, and 8a, the shelter of Esser has a substantially rounded upper surface. Therefore, as discussed above with reference to Zeigler '946, when the shelter is inverted, as suggested by the Examiner, this shape would be particularly unstable and would tend to tip to one side or the other. This instability would only increase if any material, such as hazardous waste, was added to the inside of the structure. Such a container has essentially no reasonable expectation of success.

Further, as with the device of Zeigler '946, the inverted shelter of Esser would be unable to withstand loads applied from within, such as the weight of a hazardous

chemical contained in a canopy inside the shelter. If a material was added to a canopy disposed in the inverted shelter of Esser, the shelter would collapse.

Because there is no reasonable expectation of success in the modified device of Esser, as required by M.P.E.P. § 2143, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be reversed.

(c) Esser fails to teach or suggest all the claim limitations

Third, Esser fails to teach or suggest all the claim limitations recited in Appellants' independent claims 1 and 20.

As discussed with respect to the 35 U.S.C. § 102(b) rejection, Esser fails to teach or suggest Appellants' combination recited in claim 1, including at least a "rapid deploy containment device adapted to receive and retain hazardous waste," "the containment device in the erect open configuration forming a receptacle region," and "a canopy connected to at least two hubs and residing in the receptacle region of the erect open containment device."

Further, Esser fails to teach or suggest Appellants' combination recited in claim 20, including at least a "rapid deploy containment device adapted to receive and retain hazardous waste," and "a canopy affixed to at least two hubs proximate the top portion of the containment device in the open erect configuration to form the receptacle region capable of receiving and retaining hazardous chemicals."

Because Esser fails to teach or suggest all the claim limitations recited in Appellants' independent claims 1 and 20, as required by M.P.E.P. § 2143, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be reversed.

In addition, claims 2-9, 13, and 21 are patentable for at least the reasons that claim 1 is patentable. Specifically, because the Esser reference does not teach or suggest Appellants' combination of elements recited in claim 1, it certainly does not teach or suggest the additional elements recited in claims 2-9, 13, and 21.

Löbbert, which was cited for its teaching of "a device for collecting waste wherein a container (7) on the interior of a device is lined by a removable liner (18)," is completely silent as to the features recited in Appellants' claim 1. Office Action at page 8. Thus, Löbbert fails to overcome the deficiencies of Esser discussed above.

Accordingly, Appellants respectfully request that the rejection of claims 1-9, 13, 20, and 21 be reversed and that these claims be allowed.

B. Argument for Group II: Claims 29-34

The claims in this group recite the common feature of a portable containment device comprising a frame movable between a closed configuration, in which the frame delimits a negligible area, and an open configuration, in which the frame forms a plurality of walls defining a central space, wherein the frame comprises a plurality of rods, each rod comprising a first end, a second end, and an intermediate portion, wherein the intermediate portion of each rod is pivotably connected to the intermediate portion of another rod, a plurality of first hubs, each first hub receiving first ends of at least two respective rods, wherein each respective rod is pivotable with respect to the first hub about a distinct axis, and a plurality of second hubs configured to engage a support surface, each second hub receiving second ends of at least two respective rods, wherein each respective rod is pivotable with respect to the second hub about a distinct axis, and a receptacle comprising a plurality of attachment portions secured to

respective first hubs, wherein the receptacle collapses when the frame is in the closed configuration and the receptacle forms a containment volume in the central space when the frame is in the open configuration.

All of the claims in this group were rejected under 35 U.S.C. § 102(b) as being anticipated by Choi. Further, all of the claims in this group were rejected under 35 U.S.C. § 102(b) as being anticipated by Zeigler '980. Further, of the claims in this group, claims 29-31, 33, and 34 were rejected under 35 U.S.C. § 102(b) as being anticipated by Zeigler '946 and under 35 U.S.C. § 103(a) as being unpatentable over Zeigler '946. Finally, of the claims in this group, claims 29-31, 33, and 34 were rejected under 35 U.S.C. § 102(b) as being anticipated by Esser and under 35 U.S.C. § 103(a) as being unpatentable over Esser.

1. Claims 29-34 are patentable under 35 U.S.C. § 102 over Choi

According to M.P.E.P. § 2131, "to anticipate a claim, the reference must teach every element of the claim." Further, a "claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Id.* (citing Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). Because the Choi reference does not teach every element of independent claim 29, Appellants respectfully submit that the rejection should be reversed.

Choi teaches a portable litter basket comprising a "[vinyl] bag," a "plurality of support members," and a "plurality of braces 500 which consist of a pair of elongated bars 510 being pivoted (sic) each other on their centers 511." Choi at col. 1, lines 60-64 and Figs. 1 and 2. The support members 300 "may consist of four rods 310 of equal

length.” Id. at col. 2, lines 8-9. The braces 500 “consist of a pair of elongated bars 510,” in which “the upper portions of said bars 510 are pivoted to sliders 520 slidably joined to the upper portions of said rods 310” and “the lower portions thereof being pivoted fixers 530 fixedly joined to the lower portions of said rods.” Id. at col. 2, lines 18-25. Further, a “coil spring 540 is connected between said slider 520 and said fixer 530 [...], forcing said slider to be pushed toward said fixer, so that said rods [are] stretched.” Id. at lines 25-29.

Choi fails to teach Appellants’ combination recited in claim 29, including at least “a plurality of first hubs, each first hub receiving first ends of at least two respective rods, wherein each respective rod is pivotable with respect to the first hub about a distinct axis,” “a plurality of second hubs configured to engage a support surface, each second hub receiving second ends of at least two respective rods, wherein each respective rod is pivotable with respect to the second hub about a distinct axis,” and “a receptacle comprising a plurality of attachment portions secured to respective first hubs.”

For example, in the device of Choi the vinyl bag is supported on the upper ends of support members 300. Further, lower ends of support members 300 engage a support surface. Neither the upper ends nor the lower ends of the support members 300 of Choi receive ends of rods, as claimed.

Because the Choi reference does not teach every element of independent claim 29, as required by M.P.E.P. § 2131, Appellants respectfully submit that the rejection should be reversed.

In addition, claims 30-34 are patentable at least for the reasons claim 29 is patentable. Specifically, because the Choi reference does not teach every element of

claim 29, it certainly does not teach the additional elements recited in claims 30-34.

Accordingly, Appellants respectfully request that the rejection of claims 29-34 be reversed and that these claims be allowed.

**2 . Claims 29-34 are patentable under 35 U.S.C. § 102 over
Ziegler '980**

Zeigler '980 teaches a canopy structure having a support framework. The "support framework 210 comprises a plurality of quad sections 214, 216, 218 that impart the general shape to the canopy structure." Zeigler '980 at col. 5, lines 41-43. The "quad sections 214 are each comprised of two split step scissor units 224 and two step scissor units 226." Id. at lines 57-58 and Figs. 2A-2D. Further, the "quad sections 216 are each comprised of two step scissor units 226 and two flat scissor units 250." Id. at lines 61-63. Finally, the "quad section 218 is comprised of four flat scissor units 250." Id. at lines 64-65.

Each "split step scissor unit 224 [...] comprises arm members 228, 230, either or both of which may be telescopic, a member 232 that may or may not also be telescopic, a locking member or device 234, a number of pivot joints 236, 238, and 'ring and blade' hubs 240." Id. at col. 6, lines 22-27. See also Figs. 3A-3C.

Each "step scissor unit 226 [...] comprises an arm member 246, which may or may not be divided into two members [...], and an arm member 248, which may or may not be telescopic, a pair of locking members 234, at least one pivot joint 236, and 'ring and blade' hubs 240." Id. at lines 47-53. See also Figs. 4A-4C.

Each “flat scissor unit 250 [...] comprises arm members 252, 254, which may or may not be divided into two members [...], a pair of locking members 234, at least one pivot 236, and ‘ring and blade’ hubs 240.” *Id.* at col. 7, lines 1-6. See also Figs. 5A-5C.

Zeigler '980 fails to teach Appellants' combination recited in claim 29, including at least “a frame movable between a closed configuration [...], and an open configuration, in which the frame forms a plurality of walls defining a central space,” the frame comprising “a plurality of rods [...], wherein the intermediate portion of each rod is pivotably connected to the intermediate portion of another rod,” “a plurality of second hubs configured to engage a support surface, each second hub receiving second ends of at least two respective rods, wherein each respective rod is pivotable with respect to the second hub about a distinct axis,” and “a receptacle comprising a plurality of attachment portions secured to respective first hubs, wherein [...] the receptacle forms a containment volume in the central space when the frame is in the open configuration.”

For example, in the expanded configuration, the canopy structure of Zeigler '980 (see Zeigler '980 at Fig. 1A) does not form any walls. Further, the intermediate portion of each rod of Zeigler '980 is not “pivotably connected to the intermediate portion of another rod,” as claimed. To illustrate, in the split step scissor unit 224 shown in Fig. 3A, the intermediate portions of at least rods 228 and 230 are not pivotably connected to other rods. Further, the “foot members 266” of Zeigler '980, which engage a support surface, do not receive ends of any rods. Finally, Zeigler '980 lacks a receptacle that forms a containment volume in the central space.

Because the Zeigler '980 reference does not teach every element of independent claim 29, as required by M.P.E.P. § 2131, Appellants respectfully submit that the rejection should be reversed.

In addition, claims 30-34 are patentable at least for the reasons claim 29 is patentable. Specifically, because the Zeigler '980 reference does not teach every element of claim 29, it certainly does not teach the additional elements recited in claims 30-34. Accordingly, Appellants respectfully request that the rejection of claims 29-34 be reversed and that these claims be allowed.

3. Claims 29-31, 33, and 34 are patentable under 35 U.S.C. § 102 over Ziegler '946

Because the Zeigler '946 reference does not teach every element of independent claim 29, Appellants respectfully submit that the rejection should be reversed.

In particular, Zeigler '946 fails to teach or suggest at least a frame comprising “a plurality of rods [...], wherein the intermediate portion of each rod is pivotably connected to the intermediate portion of another rod” and “a receptacle comprising a plurality of attachment portions secured to respective first hubs, wherein [...] the receptacle forms a containment volume in the central space when the frame is in the open configuration.”

As discussed above, only two of the four pairs of struts are pivotably pinned in the module of Zeigler '946. The other two pairs of struts are not even connected. Further, Zeigler '946 lacks a receptacle that forms a containment volume in the central space.

Further and for the reasons discussed above with respect to the claims in Group I, Zeigler '946 lacks a receptacle that forms a containment volume in the central space.

Because the Zeigler '946 reference does not teach every element of independent claim 29, as required by M.P.E.P. § 2131, Appellants respectfully submit that the rejection should be reversed.

In addition, claims 30-34 are patentable at least for the reasons claim 29 is patentable. Specifically, because the Zeigler '946 reference does not teach every element of claim 29, it certainly does not teach the additional elements recited in claims 30-34. Accordingly, Appellants respectfully request that the rejection of claims 29-34 be reversed and that these claims be allowed.

4. Claims 29-31, 33, and 34 are patentable under 35 U.S.C. § 102 over Esser

Because the Esser reference does not teach every element of independent claim 29, Appellants respectfully submit that the rejection should be reversed.

In particular, and for the reasons discussed above with respect to the claims in Group I, Esser fails to teach or suggest at least “a receptacle comprising a plurality of attachment portions secured to respective first hubs, wherein [...] the receptacle forms a containment volume in the central space when the frame is in the open configuration.”

Because Esser does not teach every element of independent claim 29, as required by M.P.E.P. § 2131, Appellants respectfully submit that the rejection should be reversed.

In addition, claims 30-34 are patentable at least for the reasons claim 29 is patentable. Specifically, because the Esser reference does not teach every element of claim 29, it certainly does not teach the additional elements recited in claims 30-34. Accordingly, Appellants respectfully request that the rejection of claims 29-34 be reversed and that these claims be allowed.

5. Claims 29-31, 33, and 34 are patentable under 35 U.S.C. § 103 over Ziegler '946

Because none of the three basic obviousness criteria required by M.P.E.P. § 2143 have been satisfied, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be reversed.

First, for the reasons discussed above with respect to the claims in Group I, there is no suggestion or motivation in the Zeigler '946 reference or in the knowledge generally available to one of ordinary skill in the art to modify the Zeigler '946 reference, as asserted in the Office Action.

Second, for the reasons discussed above with respect to the claims in Group I, there is no reasonable expectation of success in inverting the shelter of Zeigler '946 and using it as a hazardous waste container, as asserted in the Office Action.

Third, Ziegler '946 fails to teach or suggest all the claim limitations recited in Appellants' independent claim 29.

In particular, Zeigler '946 fails to teach or suggest at least a frame comprising "a plurality of rods [...], wherein the intermediate portion of each rod is pivotably connected to the intermediate portion of another rod" and "a receptacle comprising a plurality of attachment portions secured to respective first hubs, wherein [...] the receptacle forms a containment volume in the central space when the frame is in the open configuration."

As discussed above, only two of the four pairs of struts are pivotably pinned in the module of Zeigler '946. The other two pairs of struts are not even connected. Further, Zeigler '946 lacks a receptacle that forms a containment volume in the central space.

Accordingly, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be reversed.

In addition, claims 30, 31, 33, and 34 are patentable for at least the reasons that claim 29 is patentable. Specifically, because the Zeigler '946 reference does not teach or suggest Appellants' combination of elements recited in claim 29, it certainly does not teach or suggest the additional elements recited in claims 30, 31, 33, and 34. Accordingly, Appellants respectfully request that the rejection of claims 29-31, 33, and 34 be reversed and that these claims be allowed.

6. Claims 29-31, 33, and 34 are patentable under 35 U.S.C. § 103 over Esser

Because none of the three basic obviousness criteria required by M.P.E.P. § 2143 have been satisfied, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be reversed.

First, for the reasons discussed above with respect to the claims in Group I, there is no suggestion or motivation in the Esser reference or in the knowledge generally available to one of ordinary skill in the art to modify the Esser reference, as asserted in the Office Action.

Second, for the reasons discussed above with respect to the claims in Group I, there is no reasonable expectation of success in inverting the shelter of Esser and using it as a hazardous waste container, as asserted in the Office Action.

Third, Esser fails to teach or suggest all the claim limitations recited in Appellants' independent claim 29.

In particular, Esser fails to teach or suggest at least "a receptacle comprising a plurality of attachment portions secured to respective first hubs, wherein [...] the

receptacle forms a containment volume in the central space when the frame is in the open configuration."

Accordingly, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be reversed.

In addition, claims 30, 31, 33, and 34 are patentable for at least the reasons that claim 29 is patentable. Specifically, because the Esser reference does not teach or suggest Appellants' combination of elements recited in claim 29, it certainly does not teach or suggest the additional elements recited in claims 30, 31, 33, and 34.

Accordingly, Appellants respectfully request that the rejection of claims 29-31, 33, and 34 be reversed and that these claims be allowed.

VIII. Conclusion

For the reasons set forth above, Appellants respectfully submit that claims 1-9, 13, 20, 21, and 29-34 are patentable over the cited references, taken alone or in combination. Accordingly, Appellants respectfully request reversal of the rejections of claims 1-9, 13, 20, 21, and 29-34 under 35 U.S.C. §§ 102(b) and 103(a).

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this Appeal Brief, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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Dated: March 1, 2004

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APPENDIX - CLAIMS ON APPEAL

1. A rapid deploy containment device adapted to receive and retain hazardous waste, the containment device being convertible between an erect open configuration and a collapsed compact configuration, the containment device in the erect open configuration forming a receptacle region, the containment device comprising:

rods, each rod being pivotally joined to another rod by a scissors connection intermediate the ends of said rod;

hubs, each hub receiving an end portion of at least two rods along separate axes of each hub, the end portion being pivotally joined to said hub, where the end portion pivots in relation to said hub along a single axis of revolution, each end portion pivoting along separate axes of revolution in relation to said hub,

each end portion being rotatable about its axis of revolution from the collapsed compact configuration, where all of said rods are substantially parallel to one another, to the erect open configuration, the containment device articulating along three axes, whereby the containment device changes between the compact and open configurations in height, length and width; and

a canopy connected to at least two hubs and residing in the receptacle region of the erect open containment device.

2. The containment device recited in claim 1, wherein each of said hubs includes flanges, where at least two of the flanges receive the end portion of said rods.

3. The containment device recited in claim 2, wherein the end portion of each of said rods is pivotally jointed to one of said flanges by a pin inserted through the end portion of said rod and received on said flange.

4. The containment device recited in claim 2, wherein the at least two flanges lay substantially perpendicular to one another, whereby each of said hubs receives rods along a first axis and a second axis perpendicular to the first axis.

5. The containment device recited in claim 4, wherein the ends of said substantially perpendicular flanges bend at right angles in either a clockwise or counterclockwise direction.

6. The containment device recited in claim 5, wherein the end portion of each of said rods is pivotally jointed to a hub by a pin inserted through the end portion of said rod and received on two opposing flanges.

7. The containment device recited in claim 1, wherein each of said hubs includes a base portion, the end portion of each of said rods being pivotally jointed to said base portion by a pin inserted through the end portion of said rods and received on said base portion.

8. The containment device recited in claim 2, wherein said hub includes a base portion, where the at least two flanges project from said base portion.

9. The containment device recited in claim 1, wherein each rod is of substantially equal length and wherein said scissor connection is proximate the middle of each rod.

13. The containment device recited in claim 1, further comprising a liner positioned in the receptacle region adjacent said canopy, said liner being made of a material resistive to hazardous chemicals.

20. A rapid deploy containment device adapted to receive and retain hazardous waste, the containment device being convertible between an erect open configuration and a collapsed compact configuration, the containment device comprising:

rods, each rod being pivotally joined to another rod by a scissors connection intermediate the ends of said rod;

hubs, each hub receiving an end portion of at least two rods along separate axes of each hub, the end portion being pivotally joined to said hub, where the end portion pivots in relation to said hub along a single axis of revolution,

each end portion being rotatable about its axis of revolution from the collapsed compact configuration, where all of said rods are substantially parallel to one another and where said hubs are positioned adjacent one another at each end portion of the collapsed compact configuration, to the open erect configuration, wherein the hubs positioned proximate a top portion of the collapsed compact configuration descend downward toward a bottom portion of the containment device when converting from the

collapsed compact configuration to the erect open configuration and wherein the containment device articulates between the collapsed compact configuration and the erect open configuration in height, length, and width; and

a canopy affixed to at least two hubs proximate the top portion of the containment device in the open erect configuration to form the receptacle region capable of receiving and retaining hazardous chemicals.

21. The containment device recited in claim 1, wherein the canopy is made of a material resistive to hazardous chemicals.

29. A portable containment device comprising:

a frame movable between a closed configuration, in which the frame delimits a negligible area, and an open configuration, in which the frame forms a plurality of walls defining a central space, wherein the frame comprises:

a plurality of rods, each rod comprising a first end, a second end, and an intermediate portion, wherein the intermediate portion of each rod is pivotably connected to the intermediate portion of another rod;

a plurality of first hubs, each first hub receiving first ends of at least two respective rods, wherein each respective rod is pivotable with respect to the first hub about a distinct axis; and

a plurality of second hubs configured to engage a support surface, each second hub receiving second ends of at least two respective rods, wherein each respective rod is pivotable with respect to the second hub about a distinct axis; and

a receptacle comprising a plurality of attachment portions secured to respective first hubs, wherein the receptacle collapses when the frame is in the closed configuration and the receptacle forms a containment volume in the central space when the frame is in the open configuration.

30. The device of claim 29, wherein the frame defines a length, a width, and a height and wherein the length, the width, and the height of the frame in the closed configuration are different from the length, the width, and the height of the frame in the open configuration.

31. The device of claim 30, wherein the length and the width of the frame in the closed configuration are less than the length and the width of the frame in the open configuration.

32. The device of claim 30, wherein the height of the frame in the closed configuration is greater than the height of the frame in the open configuration.

33. The device of claim 29, wherein at least one rod received by a first hub is pivotable about a first axis and wherein at least one other rod received by the first hub is pivotable about a second axis substantially perpendicular to the first axis.

34. The device of claim 29, wherein at least one rod received by a second hub is pivotable about a third axis and wherein at least one other rod received by the second hub is pivotable about a fourth axis substantially perpendicular to the third axis.